

AMENDMENTS TO THE CLAIMS:

Without prejudice, this listing of claims will replace all prior versions and listings of the claims in the present application:

LISTING OF THE CLAIMS:

1-7. (Canceled).

8. (Currently Amended) A diode, comprising:

a press-fit base including an axially extending mounting region to mount a semiconductor chip;
a head wire provided with a head configured to be affixed to the semiconductor chip;
and

a stabilization arrangement which include at least a sleeve and an encapsulating material filling cavities;

wherein the head wire includes a stepped wire connection having a region, which together with the sleeve and the press-fit base forms a sealed housing, the cavities of the housing being filled with encapsulating material.

9. (Previously Presented) The diode as recited in claim 8, wherein the head wire is made of copper, a surface of the head wire having a nickel or a nickel alloy coating.

10. (Previously Presented) The diode as recited in claim 9, wherein the coating is made of nickel phosphorus.

11. (Previously Presented) The diode as recited in claim 8, wherein the encapsulating material is an epoxy.

12. (Currently Amended) The diode as recited in claim 8, wherein only the head of the head wire, which is inside the sealed housing, is surrounded by the encapsulating material.

13. (Previously Presented) The diode as recited in claim 8, wherein the head includes at least two regions having different diameters.

14. (Previously Presented) The diode as recited in claim 8, wherein the head is cone-shaped or bell-shaped.

15. (Withdrawn) A method for manufacturing a diode, comprising:

providing a press-fit base, the press-fit base including an axially extending mounting region to mount a semiconductor chip;

providing a head wire with a head configured to be affixed to the semiconductor chip, the head wire including a stepped wire connection region;

forming a housing using the stepped wire connection region and a sleeve; and

filling cavities of the housing with an encapsulating material.

16. (Currently Amended) A diode, comprising:

a press-fit base including an axially extending mounting region to mount a semiconductor chip;

a head wire provided with a head configured to be affixed to the semiconductor chip; and

a stabilization arrangement which include at least a sleeve and an encapsulating material filling cavities;

wherein the head wire includes a stepped wire connection having a region, which together with the sleeve and the press-fit base forms a sealed housing, the cavities of the housing being filled with encapsulating material;

wherein the head wire is made of copper, a surface of the head wire having a nickel or a nickel alloy coating; and

wherein the encapsulating material is an epoxy.

17. (Previously Presented) The diode as recited in claim 16, wherein the coating is made of nickel phosphorus.

18. (Currently Amended) The diode as recited in claim 16, wherein only the head of the head wire, which is inside the sealed housing, is surrounded by the encapsulating material, and wherein the head includes at least two regions having different diameters.

19. (Previously Presented) The diode as recited in claim 16, wherein the head is cone-shaped or bell-shaped.

20. (Currently Amended) A diode for use in an electrical arrangement of a motor vehicle, comprising:

a press-fit base including an axially extending mounting region to mount a semiconductor chip;

a head wire provided with a head configured to be affixed to the semiconductor chip; and

a stabilization arrangement which include at least a sleeve and an encapsulating material filling cavities;

wherein the head wire includes a stepped wire connection having a region, which together with the sleeve and the press-fit base forms a sealed housing, the cavities of the housing being filled with encapsulating material,

wherein the head wire is made of copper, a surface of the head wire having a nickel or a nickel alloy coating,

wherein the encapsulating material is an epoxy, and

wherein the region is an outer surface region, and wherein the press-fit base with a mounting region, the sleeve and an outer surface region of the stepped wire connection form a completely sealed housing, which is filled with the encapsulating material and protects the semiconductor chip.

21. (Previously Presented) The diode as recited in claim 20, wherein a total amount of plastic material for the encapsulating material and for the sleeve is no more than about 0.323 grams, of which no more than about 0.242 grams is for the encapsulating material.

22. (Previously Presented) The diode as recited in claim 21, wherein the head wire is made of copper, the nickel coating or the nickel alloy coating is made of nickel phosphorus, wherein only the head of the head wire, which is inside the sealed housing, is surrounded by the encapsulating material.